

**IN THE CLAIMS:**

Please write the claims to read as follows:

- 1     1.     (Original) A removable nonvolatile memory device for use in a file server having  
2     an operating system kernel, comprising:  
3         a plurality of partitions, each of the plurality of partitions capable of storing dif-  
4     ferentiated information;  
5         a first kernel image, the first kernel image stored in a first partition of the plurality  
6     of partitions; and  
7         a second kernel image, the second kernel image stored in a second partition of the  
8     plurality of partitions.
- 1     2.     (Original) The removable nonvolatile memory device of claim 1, wherein the sec-  
2     ond kernel image is a last known good kernel.
- 1     3.     (Original) The removable nonvolatile memory device of claim 1, wherein the file  
2     server  
3     further comprises a set of boot instructions including instructions for booting from the  
4     first kernel image.
- 1     4.     (Original) The removable nonvolatile memory device of claim 3, wherein the set  
2     of boot instructions further comprises instructions for booting from the second kernel im-  
3     age if an error event occurs during booting from the first kernel image.

1 5. (Original) The removable nonvolatile memory device of claim 1, further compris-  
2 ing a set of diagnostic software, the diagnostic software stored in a third partition of the  
3 plurality of partitions.

1 6. (Original) The removable nonvolatile memory device of claim 5, further compris-  
2 ing a diagnostic log, the diagnostic log stored in a fourth partition of the plurality of parti-  
3 tions.

1 7. (Original) A file server system for a computer having a processor, a memory cou-  
2 pled to the processor, and a system bus to which the memory and processor are coupled,  
3 the computer having an operating system kernel and being configured to implement a file  
4 system, the file server system comprising:

5 a removable nonvolatile memory device coupled to the system bus, the removable  
6 nonvolatile memory device having a plurality of partitions, wherein a first partition of the  
7 plurality of partitions containing a kernel image; and

8 a set of boot instructions resident in the file server system including instructions  
9 for booting from a first set partition of the removable nonvolatile memory device and in-  
10 structions for booting from an alternate set partition of the removable nonvolatile mem-  
11 ory device if an error event occurs during booting from the first set partition.

1 8. (Original) The file server system of claim 6 wherein the removable nonvolatile  
2 memory device is a compact flash.

1 9. (Original) The file server system of claim 6 wherein the removable nonvolatile  
2 memory device further comprises a second partition of the plurality of partitions, the sec-  
3 ond partition containing a last known good kernel image.

1 10. (Original) The file server system of claim 6, wherein the set of boot instructions  
2 are contained in firmware within the file server system.

1 11. (Original) The filer server system of claim 6 further comprising a third partition  
2 of the plurality of partitions, the third partition containing diagnostic software.

1 12. (Original) The filer server system of claim 10 further comprising a fourth partition  
2 of the plurality of partitions, the fourth partition containing a diagnostic log.

1 13. (Original) A method for installing a new kernel image to a removable nonvolatile  
2 memory device having a plurality of partitions in a file server system comprising the  
3 steps of:

4 storing the new kernel image on a storage device;  
5 copying a current boot kernel from a current boot kernel location to a last known  
6 good kernel location; and  
7 copying the new kernel image to the current boot kernel location.

1 14. (Original) The method of claim 11, wherein the current boot kernel location is a  
2 first partition of the removable nonvolatile memory device.

1 15. (Original) The method of claim 11, wherein the last known good kernel location  
2 is a second partition of the removable nonvolatile memory device.

1 16. (Original) The method of claim 11, wherein the storage device further comprises  
2 one or more storage disks operatively interconnected to the file server system.

1 17. (Original) A computer-readable medium operating on a computer in a network  
2 that includes a removable nonvolatile memory device having a plurality of partitions, the  
3 computer-readable medium including program instructions for performing the steps of:  
4 storing a new kernel image on a storage device;  
5 copying a current boot kernel from a current boot kernel location to a last known  
6 good kernel location; and

7 copying the new kernel image to the current boot kernel location.

1 18. (Original) A method for installing an upgrade kernel in a computer system having  
2 a removable nonvolatile memory device, the removable nonvolatile memory device hav-  
3 ing at least a first partition and a second partition, the computer system currently execut-  
4 ing a copy of an old kernel stored in the first partition of the removable nonvolatile mem-  
5 ory device, the method comprising the steps of:  
6 copying the old kernel from the first partition to the second partition;  
7 adjusting a set of boot variables so that the computer will boot from the second  
8 partition;  
9 copying a stored copy of the upgrade kernel to the first partition; and  
10 adjusting the set of boot variables so that the computer will boot from the first  
11 partition.

1 19. (Original) The method of claim 16 further comprising the step of:  
2 verifying the copy of the old kernel written to the second partition before adjust-  
3 ing the set of boot variables so that the computer will boot from the second partition.

1 20. (Original) The method of claim 17 further comprising the step of :  
2 verifying the copy of the upgrade kernel to the first partition before adjusting the  
3 set of boot variables so that the computer will boot from the first partition.

1 21. (Original) A method for installing an upgrade kernel in a computer system having  
2 a removable nonvolatile memory device, the removable nonvolatile memory device hav-  
3 ing at least a first partition and a second partition, the computer system currently execut-  
4 ing a copy of an old kernel stored in the second partition of the removable nonvolatile  
5 memory device, the method comprising the steps of:  
6 outputting a message to a user alerting the user that the computer booted from a  
7 last known good kernel;

8           adjusting a set of boot variables so that the computer will boot from the second  
9   partition;  
10          copying a stored copy of the upgrade kernel to the first partition; and  
11          adjusting the set of boot variables so that the computer will boot from the first  
12   partition.

1   22.   (Original) The method of claim 19 further comprising the step of :  
2          verifying the copy of the upgrade kernel to the first partition before adjusting the  
3   set of boot variables so that the computer will boot from the first partition.

1   23.   (Currently Amended) Electromagnetic signals propagating on ~~in~~ a computer  
2   network, comprising:  
3   ~~Said~~ said electromagnetic signals carrying instructions for execution on a processor for  
4   the practice of storing information in a computer data storage system comprising,  
1   storing a new kernel image on a storage device;  
2          copying a current boot kernel from a current boot kernel location to a last known  
3   good kernel location; and  
4          copying the new kernel image to the current boot kernel location.